



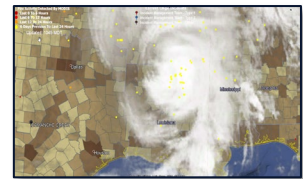
HHS emPOWER REST SERVICE_PUBLIC: OVERVIEW FOR GIS PROFESSIONALS

The [HHS emPOWER Representational State Transfer \(REST\) Service_Public](#) allows users to readily access, consume, and apply map data layers in their own geographic information systems (GIS) to support national, state, territory, local, and community-based GIS analyses. The REST Service data layers are updated monthly. They contain the total number of the Centers for Medicare and Medicaid Services (CMS) Medicare Fee-For-Service (Parts A/B) and Medicare Advantage (Part C) Program beneficiaries who have had an administrative claim for one or more of life-maintaining or saving **electricity-dependent durable medical and assistive equipment (DME) and devices**, and **at-risk combinations** for those that also rely on certain health care service(s) and any electricity-dependent DME and devices. This data is also accessible on the [HHS emPOWER Map](#), which does not require GIS capabilities.

Why use the HHS emPOWER REST Service?

Millions of Medicare beneficiaries rely on electricity-dependent DME and devices to live independently in their homes. Incidents that cause prolonged power outages, such as severe weather or disasters, can be life-threatening to these individuals.

Many of these individuals may rapidly seek assistance from emergency medical services (EMS) or overwhelm hospitals or shelters when seeking access to care or secure power. Others may shelter in place as they are unable to evacuate safely without assistance, putting their lives at risk.

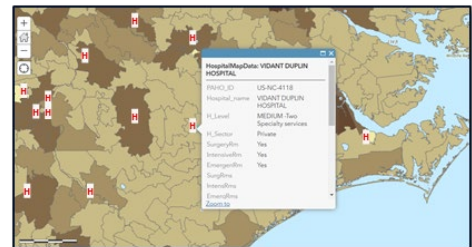


*Hurricane Laura over Texas and Louisiana
(August 2020)*

How to apply the HHS emPOWER REST Service_Public?

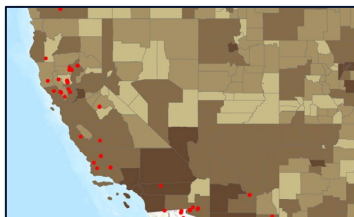
GIS users can use the HHS emPOWER REST Service data layer to map the number of electricity-dependent individuals or one of the other at-risk combinations in an area to compare it with hospital and shelter locations, evacuation routes, and more. This information can be used by public health, health care coalitions, emergency management, first responders, utilities, and many other community partners to inform emergency preparedness, mitigation, response, and recovery activities. The HHS emPOWER REST Service allow users to gain deeper insights across the emergency management cycle, such as to:

- Identify **optimal locations, staffing, resources, and power needs** for shelters based on the number of at-risk Medicare beneficiaries in a given area.
- Anticipate potential **health care and EMS surge** based on the density of at-risk beneficiaries and location of health care facilities.
- **Plan for evacuation needs** and identifying evacuation routes.
- Support **power restoration decision-making...**and more!



An emPOWER data layer overlaid with hospital locations in North Carolina

Who can access the HHS emPOWER REST Service?



emPOWER county-level data layer overlaid with thermal hotspots and fire activity in CA

The HHS emPOWER REST Service is publicly available, and GIS users can apply the HHS emPOWER REST Service in their own GIS applications and systems to help their at-risk populations and communities more rapidly recover following an incident, emergency, or disaster.

Consuming the HHS emPOWER REST Service in a user's own system enables them to conduct, inform, and support national, state, territorial, local, and community-based GIS analyses.



Administration for Strategic Preparedness & Response

HHS emPOWER REST Service_Public: APPLY, VIEW, and CONSUME THE MAP DATA LAYERS

4. How to Access the HHS emPOWER REST Service_Public?

Option 1: Visit HHS emPOWER REST Service Webpage

Step 1: Go to [HHS emPOWER Program Platform](#)

Step 2: Visit the [HHS emPOWER REST Service_Public webpage](#)

Step 3: Select the button labeled “Select here to launch the HHS emPOWER REST Service” on the right-hand side of the webpage. This will take you to the ArcGIS REST Service_Public Directory.



Option 2: Go directly to the ArcGIS REST Service_Public Directory

GIS programmers may prefer to visit the [HHS emPOWER REST Service_Public webpage directly](#) and scroll down to the “Layers” section. GIS programmers may also access the webpage by scanning the QR code to the right.

Scan this QR Code!



5. View and Consume the HHS emPOWER REST Service_Public

The [HHS emPOWER REST Service_Public](#) provides a description of the data layer, the purpose of the data, multiple options with which to view the data layer, and links to view ZIP Code, county, and state level data.

ArcGIS REST Services Directory

Home > services > [HHS_emPOWER_REST_Service_Public_Beta \(FeatureServer\)](#)

HHS_emPOWER_REST_Service_Public_Beta (FeatureServer)

View In: [Map Viewer](#)

Service Description: The de-identified (HIPAA masked) dataset includes active medical equipment, DME, Durable Medical Equipment.

Service ItemID: 443a080c19db4689aeca107a49f57c2ef

Has Versioned Data: false

Max Record Count: 2000

Supported query Formats: JSON

Supports applyEdits with Globals: False

All Layers and Tables

Layers:

- Electricity Dependent DME - All - ZipLevel (1)
- Electricity Dependent DME - All - CountyLevel (2)
- Electricity Dependent DME - All - StateLevel (3)
- Facility ESD DME/vis Any DME ZipLevel (4)
- Facility ESD DME/vis Any DME CountyLevel (6)
- Facility ESD DME/vis Any DME StateLevel (7)
- O2 Services Any DME ZipLevel (9)
- O2 Services Any DME CountyLevel (10)
- O2 Services Any DME StateLevel (11)
- Home Health Services Any DME ZipLevel (13)
- Home Health Services Any DME CountyLevel (14)
- Home Health Services Any DME StateLevel (15)
- At-Home Hospice Any DME ZipLevel (17)
- At-Home Hospice Any DME CountyLevel (18)
- At-Home Hospice Any DME StateLevel (19)
- Any Healthcare Service Any DME ZipLevel (21)
- Any Healthcare Service Any DME CountyLevel (22)
- Any Healthcare Service Any DME StateLevel (23)

Description:

Data Overview: ASPR, in partnership with the Centers for Medicare and Medicaid Services (CMS), provide de-identified and aggregated Medicare beneficiaries data to the state, county, and ZIP code levels in the HHS emPOWER REST Service_Public. The REST Service includes aggregated data from the Medicare Fee-For-Service (Part A & B) and Medicare Advantage (Part C) Programs for beneficiaries who rely on electricity-dependent, durable medical equipment, DME, Durable Medical Equipment.

Data includes the following DME and devices: Cardiac devices (left, right, and bi-ventricular assistive devices (LVAD, RVAD, BIVAD) and total artificial heart pumps, suction pumps, and other renal disease (ESRD) at-home dialysis, motorized wheelchair or scooter, and electric bed.

Purpose: Over 2.5 million Medicare beneficiaries rely on electricity-dependent medical equipment, such as ventilators, to live independently in their homes. Even public health officials, emergency managers, hospitals, first responder, electric company, and community member the power to discover the electrical infrastructure in their communities.

Data Source: The REST Service's data is developed from Medicare Fee-For-Service (Part A & B) (>33M 65+, blind, ESRD, etc.) and Medicare Advantage (Part C) programs. It does not include individuals that are only enrolled in a State Medicaid Program. Note that Medicare DMEPOS is not subject to insurance claim reimbursement data.

ZIP Code Aggregation: Some ZIP Codes do not have specific geospatial boundary data (e.g., Rural ZIP Codes). To capture the complete population under the parent ZIP Code.

Approved Data Uses: The public HHS emPOWER REST Service is approved for use by all partners and is intended to be used to help inform and support emergency preparedness, mitigation, response, and recovery activities in all communities.

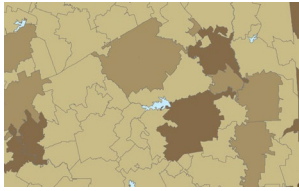
Privacy Protections: Protecting the privacy of Medicare beneficiaries is an essential priority for the HHS emPOWER Program. Therefore, all personally identifiable information is removed from the data and numerous de-identification methods are applied to significantly minimize, if not completely eliminate, any potential for deduction of small cells or re-identification risk. For example, any cell size found between the range of 1 and 10 is masked and shown as 11.



HHS emPOWER REST SERVICE: AT-RISK DATA LAYERS INFORMATION AND GUIDE

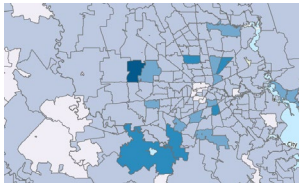
The HHS emPOWER REST Service_Public provides national, state, territory, county, and ZIP Code level data, including de-identified totals by **electricity-dependent DME and devices** and **at-risk combinations**, as described below. More detailed information on each data type is available in the [Quick Data Reference Guide](#).

To conduct a more comprehensive analysis, overlay data layers from other Federal REST Services on top of HHS emPOWER REST Service_Public data layers. For information on these data layers see page 3 of the [emPOWER Map Job Aid](#).



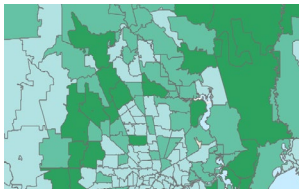
Electricity-Dependent DME and Devices

Individuals who have an administrative claim for one or more of the fourteen types of the following devices: cardiac devices, oxygen concentrator, suction pump, bi-level positive airway pressure device (BiPAP), ventilator, electric bed, intravenous (IV) infusion pump, enteral feeding tube, motorized wheelchair or scooter.



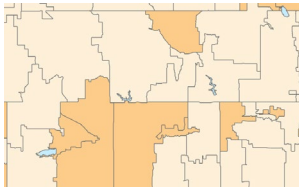
In-Facility End-Stage Renal Disease (ESRD) Dialysis and Any DME and Devices

Individuals receiving in-facility ESRD Dialysis treatment services and use one or more types of electricity-dependent DME and devices.



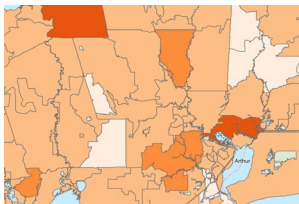
Oxygen Tank Services and Any DME and Devices

Individuals with qualifying conditions who receive home oxygen tank service delivery and use one or more types of electricity-dependent any DME and devices.



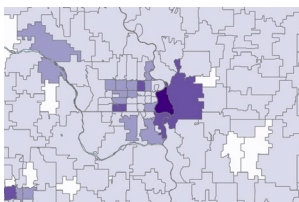
Home Health Care Services and Any DME and Devices

Individuals who receive home health care services and use one or more electricity-dependent DME and devices.



At-Home Hospice Care Services and Any DME and Devices

Individuals who use at-home hospice care and use one or more electricity-dependent DME and devices.



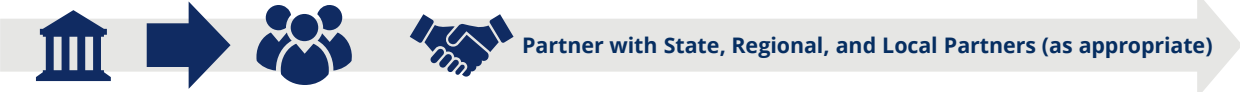
Any Health Care Service and Any DME and Devices

Individuals receiving any health care service and use one or more electricity-dependent DME and devices.

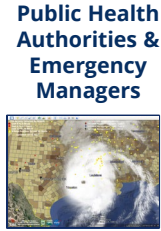


HHS emPOWER REST SERVICE_PUBLIC EXAMPLE ONE: ELECTRICITY-DEPENDENT DME

Use the HHS emPOWER REST Service's de-identified data to understand, anticipate, and respond to the needs of electricity-dependent populations and implement targeted activities across the emergency management cycle.



CMS & ASPR
State, territory, county, and ZIP Code specific de-identified data on the HHS emPOWER REST Service



Public Health Authorities & Emergency Managers
Federal Medicare De-identified [HHS emPOWER REST Service Public](#)

Preparedness: Assess and establish plans, contracts, capabilities, and communications for electricity-dependent DME needs in shelters, charging stations, and pre-event power restoration planning.

Mitigation: Integrate power needs into shelters; develop potential recharging stations; and potentially expedite other resources and transportation to support continuity of electricity-dependent DME and other health care services in future emergencies.

Response: Activate plans, capabilities, and contracts to support population needs; assess supplier capacity for continuity of care of electricity-dependent DME and community-based health care services; and inform power restoration prioritization during the emergency.

Recovery: Prioritize electricity-dependent DME and health care suppliers' access to shelters and/or community for DME service (e.g., supplies, repair, replacement services) to expedite care and safe return to home or other location.

Exercise: Access and Add Data Layers

Example Scenario: Santa Clara County, California, is facing severe wildfires from two adjacent counties and has planned emergency public safety power shutoffs to reduce further risk. The county public health and emergency management officials are developing evacuation and sheltering plans to protect at-risk populations and reduce stress on the 9-1-1 dispatchers, EMS, and hospitals helping those acutely injured by the fire. Follow the steps below to inform emergency planning and response activities using the HHS emPOWER REST Service_Public.

Step 1: Access the REST Service by selecting one of the GIS format links provided on the [HHS emPOWER REST Service Public](#) webpage and consume the REST Service data layers in your GIS application of choice.

Step 2: Review the data layer displayed and familiarize yourself with the [Electricity Dependent DME Legend](#). Use the legend to identify which ZIP Codes have the highest number of electricity-dependent Medicare beneficiaries in Santa Clara County.

Step 3: Next, add a data layer with wildfire events using the [GeoHEALTH USA Wildfire Activity REST Service](#) or other REST Service used by your state. Note fire locations throughout the U.S. and zoom in on northern California to view wildfires.

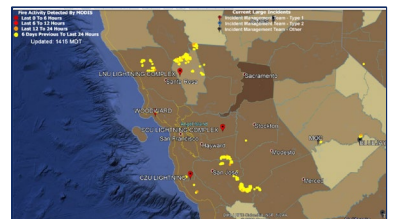
Step 4: If available, add additional data layers for the areas of planned power outages, EMS and hospital locations, and roadway status to the map.

Step 5: When viewing this map, identify the following:

- ✓ The safest evacuation routes and potential assets for assistance;
- ✓ Optimal locations for shelters and baseline estimates of DME power needs;
- ✓ ZIP Codes for prioritizing response assets, deployment and staging areas to reduce surge and stress on EMS and hospitals; and
- ✓ Areas that should be prioritized for power restoration once the wildfires have subsided.



HHS emPOWER REST Service_Public webpage



An emPOWER data layer overlaid with wildfire locations in northern California